JOURNAL OF MYCOLOGY.

Vol. II. MANHATTAN, KANSAS, SEPTEMBER, 1886. No. 9.

SYNOPSIS OF THE NORTH AMERICAN HYPOCREACEAE, WITH DESCRIPTIONS OF THE SPECIES.

BY J. B. ELLIS AND B. M. EVERHART.

(Continued from page 80.)

97. NECTRIA CELASTRI, Schw. Syn. N. Am., 1421.

"Stroma tuberculariform, pale yellowish within, becoming black outside, subpulvinate; perithecia densely cæspitose on the stroma, globose-ovate, corrugate-rugose; ostiola obsolete, but showing as a dark-brown speck, about the size of *S. cinnabarina*, easily falling from the stroma. The perithecia at length become indurated, but do not collapse." Specimens of *Celastrus scandens*, collected in New York State by W. R. Gerard, agree well with the above-quoted characters, except in having the perithecia only one fifth or one sixth millim. in diam. and collapsed. We no not, however, consider this latter character in every case reliable, as it depends, in some measure, on the stage of growth at which the specimens are collected. In Gerard's specimens, the stroma is not well shown, as it is already covered with and partially obliterated by the superimposed perithecia, which are of a bright red color at first, but at length dark red and collapsed, and have the surface subverrucose-roughened. The asci are cylindrical, 55—60 x 6 μ, or sometimes enlarged above to 8 or 10 μ thick; sporidia 1-seriate, elliptical, 1-septate, not constricted, 7—8 x 3½—4 μ. The groups of perithecia are about 1 millim. across. Notwithstanding the slight discrepancies, we are inclined to regard this as the species meant by Schweinitz, who found it rather rare on *Celastrus*, about Bethlehem, Pa. Peck, in 26th Report, also mentions it as found by him at Greenbush, N. Y., but he gives no description of his specimens and we have not seen them.

98. NECTRIA MICROSPORA, C. & E. Grev. V, p. 53.

Cæspitose, bursting out in groups of 3—10 through cracks in the bark; perithecia subglobose, orange-red, smooth, at length collapsing, one sixth to one fifth millim. in diam.; asci cylindrical, 50—60 x

5—6 μ; sporidia elliptical, 2-nucleate, becoming 1-septate, hyaline, 6—7 x 3½—4 μ; groups of perithecia ½—1 millim. across; stroma not conspicuous. On bark of *Magnolia glauca*, Newfield, N. J., July.

99. Nectria aureofulva, C. & E. Grev. VII, p. 8.

With the same habit as the preceding species, but perithecia larger (¼ millim.), subglobose, smooth, pale, golden-yellow, with the minute ostiolum darker; asci cylindrical, 50 x 6—7 μ; sporidia biseriate, oblong-fusoid, 8—12 x 3 μ, 2-nucleate, becoming tardily uniseptate; stroma pale, flattish, scarcely rising above the epidermis. On bark of *Magnolia glauca*. Autumn.

100. Nectria infusaria, Ck. & Hark. Grev. XII, p. 101.

"Cæspitose, erumpent, pale red; perithecia few, oval, soft-waxy, subconfluent, smooth, glabrous, 5—10 on a stroma; asci cylindrical, 8-spored; sporidia uniseriate, elliptical, obtuse, uniseptate, not constricted, hyaline ('demum pallidis'), 10 x 4½ μ; conidia (*Fusarium Acaciæ*, Ck. & Hark.), either accompanying the perithecia on the same stroma or produced in separate pustules of earlier growth, on a pale red, pulvinate stroma, curved, hyaline, acute at each end, 3-septate, 30—40 x 2½ μ. On *Acacia* twigs, California, (Harkness, Nos. 2162 and 2268), in a quadrisulcate manner as in many *Valsas*. Asci 45—55 x 10—12 μ, oblong-cylindrical, subsessile; sporidia biseriate, oblong-fusoid, hyaline, 3—4-nucleate, becoming uniseptate, 12—16 x 4—5 μ, sometimes constricted at the septum, but mostly not. Some of the perithecia are scattered and stand singly, but, in well-developed specimens, they form dense clusters 1—1½ millim. in diam." This description is taken from the specimens in N. A. F., 773, on *Benzoin*, collected in West Chester, Pa., and agrees fairly with that given by Schweinitz, except that the perithecia are not *polystichous* (lying in several layers), nor are they what would, in a general way, be called *smooth*. They are certainly not glabrous, nor are those of *N. coccinea*, Fr., which are called smooth, but are, at least when dry, distinctly furfuraceous, though not so decidedly so as in this case. Our friend, W. C. Stevenson, Jr., has, however, compared the specimens in N. A. F., 773, with an original specimen of *N. ochroleuca*, Schw., in Herb. Schw., in the Mus. of the Acad. Nat. Sci., at Philadelphia, and says that, outwardly, they appear to be the same, but he did not make a microscopical examination, as the specimen in the Acad. Herb. was very meager. Found, according to Schweinitz, on various deciduous trees, both at Salem, N. C., and Bethlehem, Pa.

101. Nectria atrofusca, Schw. Syn. N. Am., 1429.

Stroma pulvinate, subcarnose, wood-color inside, darker outside, small (½ millim. or about that), erumpent through the epidermis, by the ruptured margin of which it is closely embraced; perithecia cæspitose, nearly black, smooth and glabrous, small, mostly less than one sixth millim., conic, becoming ovate and obovate, and finally collapsing above; ostiolum obtuse-conic, black and shining, rather large; asci subcylindrical, 45—55 x 7 μ, with abundant, imperfectly-developed paraphyses; sporidia subbiseriate, oblong-elliptical, lower cell

sometimes a little narrower, uniseptate, hyaline, 10—12 x 4½ μ. On dead stems of *Staphylea trifolia*, Bethlehem, Pa. (Schweinitz), West Chester, Pa. (Everhart). The foregoing description is from specimens distributed in N. A. F., 1547, which agree with specimens in Herb. Schw. The groups of perithecia are often arranged in a subseriate manner, are about 1 millim. in diam, and, with the stroma to which they are attached, are finally deciduous.

102. NECTRIA NIGRESCENS, Cke. Grev. VII, p. 50.

"Cæspitose, red, at length turning black, glabrous; ostiolum papilliform; asci cylindrical; sporidia elongated-elliptical, uniseptate, 18 x 6 μ; stylospores on (the same) stroma, some ovate, brown, 5 x 3 μ, others linear, 6 x 2 μ, hyaline. On *Gleditschia*, Aiken, So. Ca. (2564)."

(To be continued.)

NEW SPECIES OF FUNGI FROM VARIOUS LOCALITIES.

BY J. B. ELLIS AND B. M. EVERHART.

DIATRYPELLA HYSTERIOIDES, E. & E.—On a decorticated poplar limb in a willow jungle. Louisiana. Langlois, No. 380. Stroma erumpent, tuberculiform, prismatic, often deeply quadrisulcate and subcornute, ½—1 millim. in diam., yellow inside (about the same shade of yellow as in *Hypoxylon Sassafras*, Schw.), often elongated, hysteriiform (1½—2 millim. long), with a longitudinal furrow above like a *Hysterium*; perithecia 2—6 in a stroma, ⅛—½ millim. in diam., with thick, black, coriaceous walls, narrowed above into a short neck, the apex of which is visible on the surface of the stroma as a small, papilliform or sometimes conic ostiolum; asci clavate-cylindrical, with a slender base, 100—115 x 10—12 μ (spore-bearing part 75—80 μ), filled with a multitude of allantoid, yellowish, 2-nucleate, 6—7 x 1½ μ sporidia. The species is well characterized by its peculiar stroma. The color of the young stroma is much deeper orange-red, but the color finally disappears.

LOPHIOSTOMA HETEROSTOMUM, E. & E.—On an oak barrel bottom. June. Langlois, No. 478. Perithecia erumpent, scattered or subgregarious, ½—¾ millim. in diam., depressed, spherical, the lower half sunk in the wood, the upper half emerging; ostiolum large, compressed, extending at first nearly or quite across the perithecium, at length deciduous, leaving the perithecium pierced above with a small, round opening; asci clavate-cylindrical, rounded above and contracted below into a slender, stipe-like base, 70—80 x 6—7 μ, surrounded with abundant, rather stout paraphyses and containing eight fusoid, 1-septate, hyaline, slightly curved, appendiculate sporidia, 18—20 x 4½—5 μ, 3—4 nucleate at first, but the nuclei and stout, 8—10 μ long, hyaline appendages at length disappear, and the sporidia become constricted in the middle with the

5—6 μ; sporidia elliptical, 2-nucleate, becoming 1-septate, hyaline, 6—7 x 3½—4 μ; groups of perithecia ½—1 millim. across; stroma not conspicuous. On bark of *Magnolia glauca*, Newfield, N. J., July.

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With the same habit as the preceding species, but perithecia larger (¼ millim.), subglobose, smooth, pale, golden-yellow, with the minute ostiolum darker; asci cylindrical, 50 x 6—7 μ; sporidia biseriate, oblong-fusoid, 8—12 x 3 μ, 2-nucleate, becoming tardily uniseptate; stroma pale, flattish, scarcely rising above the epidermis. On bark of *Magnolia glauca*. Autumn.

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ends rounded (fusoid-oblong), often with a distinct yellow-brown shade. The wood just below the surface assumes a uniform purplish-red color. This might, perhaps, be considered a var. of *Lophiostoma pulveraceum*, Sacc., but differs in the stained matrix, larger perithecia and deciduous ostiola.

LOPHIOSTOMA SUBCOLLAPSA, E. & E.—On outer bark of living *Nyssa multiflora*, Newfield, N. J. June, 1886. Perithecia cartilagino-membranaceous, black, globose, ¼—1 millim. in diam., buried in the substance of bark, the epidermis slightly elevated and blackened over them and pierced by the papilliform ostiolum, which finally collapses; asci clavate-cylindrical, about 150 x 12 μ, with abundant paraphyses; sporidia obliquely 1-seriate or more or less distinctly biseriate above, oblong-elliptical, 20—26 x 8—10 μ or regularly elliptical, 20—22 x 12—15 μ, hyaline at first becoming brown and 3—7-septate, but not constricted at the septa. The sporidia are sometimes a little curved, or at least more prominent on one side. Apparently allied to *L. obtectum*, Pk., and approaching *Massaria*. The ostiolum is quite inconspicuous and only slightly prominent. Sometimes one or two of the cells of the sporidia is divided by a longitudinal septum.

DIAPORTHE KELLERMANNIANA, Winter.—On decaying culms of *Zea Mays*. June. Langlois, 494. Stroma extending continuously for several inches, or in narrow strips and irregular patches, circumscribed by a black line and surface of the matrix also blackened; perithecia scattered or subcæspitose, sunk in the substance of the culm, ⅓—½ millim. in diam., their long (1 millim.), rather crooked black ostiola projecting; asci lanceolate, about 40 x 7—8 μ; sporidia biseriate, oblong-fusoid, 4-nucleate and yellowish, becoming constricted and uniseptate, ends rather obtusely pointed, 7—10 x 3 μ.

In the published description of this species in Bull. Torr. Bot. Club, X, p. 49. There is nothing said of any ostiolum, and there is said to be no stroma ("stroma nullum"), but we believe this is, nevertheless, the species there meant.

SPHÆRIA (ZIGNŒLLA) SUBVESTITA, E. & E.—On dry, bleached roots of *Vaccineum*, Newfield, N. J., May, 1886. Perithecia seated on the bare wood or on the bark, with the base sunk in the matrix, ovate-conic, one sixth to one fourth millim. in diam. and one half millim. or more high, black, rough, except the smooth, sub-shining, short-cylindrical or sub-conical, broadly perforated, sub-truncate ostiolum; asci clavate-cylindrical, 50 x 6—7 μ, with filiform paraphyses and a slender, stipitate base; sporidia fusiform, yellowish-hyaline, slightly curved, 3-septate and constricted slightly at the middle septum, 12—15 x 2½—3 μ, crowded-biseriate. The sporidia are much the same as in *Sphæria Hendersoni*, Ell., except in having the ends slightly curved, but in that species the perithecia are depressed and subcuticular and subastomous. *Melanomma conica*, Fckl., has much larger sporidia (28 x 4 μ).

DIDYMELLA PROMINENS, E. & E.—On dead herbaceous stems of *Ambrosia trifida*. Langlois, No. 336. Perithecia erumpent-superficial, scattered, ovate-hemispheric, ¼ millim. in diam., black, rough, except the prominent, tubercular-conic or short-cylindrical ostiolum; asci clavate-cylindrical, subsessile, 40—45 x 6—7 μ, with filiform paraphyses and eight subfusoid or subcymbiform, 1-septate, hyaline sporidia, 10—12 x 3—4 μ, slightly constricted at the septum.

DIAPORTHE GLADIOLI, E. & E.—On dead stems of Gladiolus, Louisiana, February, 1886. Langlois, No. 390. Perithecia sunk in the substance of the stem just below the epidermis, which is blackened above them, forming elliptical, definitely limited spots 2—3 millim. long or, by confluence, 1 cm. or more; perithecia about ¼ millim. in diam., few, often only one or two in a spot, sometimes 6—8; asci (spore-bearing part) about 40 x 6—7 μ, with a substipitate base; sporidia biseriate, subfusoid, 7—10 x 2½ μ, 2-nucleate, becoming 1-septate, hyaline. The ostiola project like slender, black bristles about 1 millim. long, but are easily broken off. This is very different from *Sphærella minimæpuncta*, Ck., also on Gladiolus.

SPHÆRELLA SAPINDI, E. & E.—On living leaves of *Sapindus marginatus*, Missouri, July, 1886. B. T. Galloway. Perithecia epiphyllous, globose, prominent (⅛ millim.), scattered, on roundish, definitely margined, white spots, 3—4 millim. in diam.; asci oblong-cylindrical, 60 x 12 μ; sporidia biseriate, subelliptical (a little narrower at one end), 1-septate and slightly constricted, 16 x 4 μ. The conidial stage is a macrosporium on the same spots, with long, stipitate conidia and slender, septate hyphæ.

SPHÆRELLA SABALIGENA, E & E.—On dead tips of leaves of *Sabal Palmetto*, April, 1886. Langlois, No. 426. Perithecia gregarious, 100—125 μ in diam., covered by the cinereous cuticle, which is scarcely ruptured, over them; asci subovate. 22—25 x 12—15 μ; sporidia crowded, oblong-clavate, 1-septate, constricted at the septum, subhyaline, 10—12 x 3½—4 μ.

SPHÆRELLA SUBCONGREGATA, E. & E.—On peduncles of *Erigeron salsuginosus*, Mt. Paddo, Wash. Terr., alt., 6,000 to 7,000 ft., August, 1885. W. N. Suksdorf, No. 234. Perithecia gregarious or occasionally 3—6 collected in a cluster, erumpent and subsuperficial, ovate-globose, about ¼ millim in diam., ostiolum acute; asci oblong, 40—45 x 12—15 μ, without paraphyses; sporidia biseriate, oblong-cylindrical or clavate-oblong, subhyaline (yellowish), 18—23 x 3—4 μ. or, in the clavate form, 4—5 μ wide. *Pleospora permunda*, Ck., which appears to be common in the Rocky Mt. region, occurred on the same stem.

SPHÆRELLA SMILACINA, E. & E.—On dead stems of *Smilax*, Newfield, N. J., May, 1886. Scattered, depressed, globose, one sixth millim. in diam., covered by the cuticle, which is blackened directly over the perithecia and barely pierced by the minute ostiolum; asci oblong, sessile, about 35 x 7 μ; sporidia biseriate or crowded, hyaline, fusiform-oblong or clavate-oblong, 1-septate, 9—11 x 2½ μ; perithecia entirely similar to the asciferous perithecia, only a little more prominent and mostly on bleached stems, contain stylospores, oblong or elliptical-oblong, hyaline, 2-nucleate, 1-septate and slightly constricted, 7—8 x 3—3½ μ. *Diplodina Smilacis*, E. & E.

SPHÆRELLA GRANULATA, E. & E.--On dead stems of *Baptisia tinctoria*, with *Sphærella baptisiæcola*, Ck., Newfield, N. J., April, 1886. Densely gregarious, occupying a definitely-limited area of the stem; perithecia minute (one sixth millim.), covered by the epidermis, which is raised and fissured over them, but not blackened, though the black perithecia are visible through it; ostiolum papilliform, only slightly prominent; ascigerous nucleus, white; asci nearly cylindrical, about 70 x 7 μ subsessile, without paraphyses, and containing eight biseriate, fusiform, slightly curved, hyaline, granulate at first, then uniseptate, sporidia 20—23 x 3—3½ μ. The specimens found grow around the base of the stem, extending up for about 2 inches, where it was abruptly succeeded by *Sphærella baptisiæcola*, Ck., in which the perithecia are more scattered and the sporidia shorter (12—16 μ), broader (4—5 μ) and continuous. The specimens of this latter species, in Rav. F. Am., are not well developed and have the spores narrower (3—3½ μ) and more acute, as described by Cooke.

DIMEROSPORIUM XYLOGENUM, E. & E.—On decaying wood of *Salix*. Louisiana. Langlois, No. 371. Perithecia superficial, scattered, depressed-hemispheric, rough, one sixth to one fourth millim., with an obscure, papilliform ostiolum; asci obovate, contracted below into a short stipe, 35—40 x 20—24 μ, without paraphyses, and containing 8 oblong-elliptical, 1-septate, granular, subhyaline, 15—16 x 8 μ sporidia. Differs from the usual type of *Asterina* and *Dimerosporium* in its habitat and the absence of any definite mycelium.

DIMEROSPORIUM SPARTINÆ, E. & E.—On dead lower sheaths of *Spartina polystachya*, Plaquemines Co., La., May. Langlois, No. 428. The mycelium forms small (2—4 millim. long), oblong or elliptical, black patches, consisting of a thick growth of erect, simple, septate, subnodulose, sterile hyphæ, nearly hyaline at first, but soon opaque, 130—175 x 6—8 μ, and pale, yellowish, prostrate hyphæ, producing fusoid-cylindric or subfalcate, nucleate conidia, 40—60 x 3 μ. Nestling among the sterile hyphæ are black, membranaceous, subovate perithecia, ½—⅓ millim. in diam., with a very large opening above; asci clavate-cylindrical, 75 x 15 μ, with imperfectly-developed paraphyses; sporidia 8 in an ascus, oblong-cylindrical, yellowish (nearly hyaline), slightly curved, 3—4-nucleate, becoming uniseptate, 18—20 x 4—5 μ. Some sporidia were seen imperfectly 3-septate, but one septum seems to be the normal state. This is remarkable for the large apical opening, more like a half-grown *Cenangium* than like an ostiolum.

DIDYMOSPHÆRIA PARDALINA, E. & E.—On dead stems of *Spartina polystachya*, May. Langlois, No. 429. Perithecia gregarious in groups of 4—6, whose position is indicated by suborbicular or elliptical, black spots, 2—4 millim. in diam., or by confluence more entirely sunk in the substance of the stem, rather large (½ millim.), with thick, coriaceous walls and minute punctiform ostiolum, not elevating the epidermis; asci cylindrical, 150—200 x 12—15 μ; sporidia uniseriate, oblong-cylindrical, olive-brown, 1-septate and constricted, slightly curved, ends obtuse, 22—30 x 8—10 μ.

AMPHISPHÆRIA SUBICULOSA, E. & E.—On decorticated poplar. Langlois, No. 382. Perithecia superficial, gregarious, depressed-globose (⅛ millim.), brown-black, rough, but subshining above when viewed obliquely; ostiolum radiate-sulcate, not prominent. The lower part of the perithecia is clothed with a coat of brown, branching hairs, which also cover thinly the surface of the matrix around and between the perithecia, some of which touch each other but are not confluent; asci cylindric-clavate, 90—100 x 12—15 μ, with abundant paraphyses; sporidia biseriate, oblong, pale brown, 1-septate and slightly constricted at the septum, ends obtuse and each cell nucleate, 15—20 x 4—5 μ.

MELANOPSAMMA CUPRESSINUM, E. & E.—On bleached wood of cypress pickets and red cedar. Langlois, No. 394 and 326. Perithecia emergent, superficial, gregarious, ⅛—⅛ millim. in diam. (on cypress), rather more elongated and subhysteriiform on red cedar, rough, carbonaceo-membranaceous, with a broad and rather depressed opening above (probably with a prominent ostiolum at first); asci clavate-cylindrical, 70—75 x 10—12 μ, with filiform paraphyses and 8 biseriate, yellowish-hyaline, clavate-oblong, 1-septate, about 12 x 4 μ sporidia.

DIPLODIA FRUMENTI, E. & E.—On dead stalks of *Zea Mays*, June. Langlois, No. 493. Perithecia globose, sometimes with a stout, cylindrical ostiolum, subcæspitose or often seriate, bursting out through longitudinal cracks; sporules elliptical, brown, 1-septate, 15—18 x 12 μ, on stout pedicels. Very different from *Diplodia Zeæ*, Lev.

MYXOSPORIUM SUBVIRIDE, E. & E.—On dead limbs of birch, Plainfield, N. J. G. F. Meschutt. Acervuli scattered, subepidermal, raising the epidermis into distinct pustules and discharging the oblong, greenish-hyaline sporules, 7—13 x 4—5 μ (mostly 11—12 x 4—4½ μ) in a greenish, amber-colored mass.

PESTALOZZIA PRIMARIA, E. & E.—On dead *Scirpus fluviatilis*, May. Langlois, No. 443. Acervuli hysteriiform, black, erumpent-superficial, about ½ millim. long, scattered; conidia oblong-cylindrical, yellow-brown, at length 1-septate, with a crest of three short, hyaline, spreading bristles, 6—9 μ long and slightly thickened at their tips; pedicels filiform, 10—12 μ long. The conidia are at first continuous. Very different from *P. versicolor*, Speg., var. *Americana*, which is also on *Scirpus*.

MELANCONIUM SALICINUM, E. & E.—On dead limbs of *Salix nigra*. Langlois, No. 374. Acervuli scattered, tuberculiform, or often truncate above, about 1 millim. across, closely surrounded and margined by the raised epidermis; spores ovate-elliptical, brown, 10—12 x 6—7 μ. Differs from *M. bicolor*, Nees., in its habitat and absence of the white stroma.

STILBUM MACROCARPON, E. & E.—On rotton wood. April. Langlois, No. 465. Stem white, cylindrical or compressed, loosely floccose-fibrillose, ½ millim. high by about 75 μ thick; head subglobose, black, 100—125 μ in diam.; conidia oblong, granular and nucleate, 12—20 x 6—7 μ, subcatenulate on the tips of the fibres which compose the stem, involved in mucus, closely compacted into a firm, black head. Excepting the black head, scarcely distinguishable, outwardly, from *S. parvulum*, C. & E. Remarkable for its large, subcatenulate conidia.

HELMINTHOSPORIUM SPICULIFERUM, E. & E.—On large, white, dark-bordered spots, on leaves of *Sabal palmetto*, Louisiana. Langlois, No. 426. Sterile hyphæ, effused, simple, erect, brown, subundulate, continuous (or faintly septate ?), 100 x 2½—3 μ; conidia oblanceolate, pale brown, 5—9-septate, narrowed below into a slender, subhyaline base, more abruptly contracted above, with the apex truncate and darker brown. Sometimes the conidia are constricted at one or more of the septa. Forms a thin, velutinous coat, scarcely visible to the naked eye.

PERICONIA LATERALIS, E. & E.—On dead herbaceous stems. June. Langlois, No. 489. Fertile hyphæ, erect, subulate, septate, opaque, 250—300 μ high and 8—10 μ thick at base, nearly straight and bearing on one side, just below the tip, a flattish cluster of globose, yellowish-brown, echinulate, 10—12 μ, conidia. The hyphæ appear, under the lens, like a thin, erect, black pubescensce, and the part of the stem occupied is mostly blackened. The habitat is that of *P. byssoides*, Fr. (*Sporocybe byssoides*, in N. A. F.) The conidia have a large nucleus of a lighter shade.

ISARIOPSIS SUBULATA, E. & E.—On decaying stalks of *Zea Mays*. Langlois, No. 495. Stipe subulate, 1—1½ millim. high, tapering above and lighter colored, composed of rather closely-compacted, brown hyphæ, with free-spreading, hyaline, squarrose-spreading tips on all sides above, bearing the hyaline, mostly 2-nucleate, ovate, 7—8 x 4 μ conidia. The stipe is subbulbous and strigose at base. This varies from the generic character as given by Fresenius, in the conidia not being septate.

STERIGMATOCYSTIS DASYTRICHA, E. & E.—On decaying wood, lying on the ground. May. Langlois, No. 441. Fertile hyphæ, effused, velutinous, erect, pale, olive-brown, septate, 250—300 x 6—8 μ, the oblong or ovate, enlarged apex thickly covered with coarse, nodulosely-branched sterigmata, 20—25 x 4 μ, obtuse and sublobate at the tips, and with short, rudimentary, lateral branches or projections, which are often little more than mere swellings or tubercles, irregularly arranged and all together, forming an oblong head, 45—60 μ long by 20—25 μ thick; conidia oblong-cylindrical, hyaline, 5—7 x 1¼—1½ μ, borne either singly or 2—3-catenulate on the tips of the basidia. Under the lens or even to the naked eye, the conidia are white, causing the olivaceous, velutinous hyphæ to appear sprinkled with gray. The general appearance is that of *Menispora glauco-nigra*, C. & E.

NOTES ON FLORIDA FUNGI.--No. 8.

BY W. W. CALKINS, CHICAGO, ILLINOIS.

36. POLYPORUS NIPHODES, B. & Br. var.—Resembles *Irpex* somewhat; pores more open than in *P. niphodes*. Rare.

37. POLYPORUS FLORIDANUS, Berk.—Somewhat abundant, growing unattached except at base. Not resupinate as is *P. pergamenus*, which it might be mistaken for were it not for the color, which is grayish slaty above and dark underneath.

38. GLEOPORUS CONCHOIDES, Mont.—Not common (*P. nigromarginatus*, Schw.) On fallen limbs.

39. HYMENOCHÆTE CORRUGATA, B.—Abundant on rotten limbs in damp places. Color light. Surface frequently broken. Easily distinguished from the next species.

40. HYMENOCHÆTE INSULARIS, B.—Common. Color umber. Generally spread evenly over the surface of rotten limbs, but occurs in small, detached patches the size of a dime, which may have suggested the name. This is *H. cervina*, according to Ellis.

41. THELEPHORA PEDICELLATA, Schw.—Found encircling the limbs of living *Myrica* and young *Quercus* in damp places. Never found on dead trees. Of a gray color. Common.

42. THELEPHORA FLORIDANA, E. & E., n. sp.—On a dead fallen tree. Rare. For descr., *vide* JOURN. MYCOL., April, 1886.

43. HYPOCHNUS ALBOCINCTUS, Mont.—In myriads on living trees, notably on *Magnolia grandiflora*.

44. HYPOCHNUS RUBROCINCTUS, Ehrb.—Abundant with the preceding species. Both are claimed by lichenologists, with reason, probably.

45. EXIDIA GLANDULOSA, Fr.—Not uncommon on small, dead branches.

46. GRANDINIA TUBERCULATA, B. & C.—Rather abundant. A fine species.

47. GRANDINIA GRANULOSA, Fr.—Rare on a dead limb.

48. GRANDINIA CRUSTOSA, Fr.—Rare on limbs.

49. HYDNUM FRAGILLISSIMUM, B. & C.—Abundant on the under side of old logs and bark. Of a rich saffron color.

50. HYDNUM LÆTICOLOR, B. & C.—Of a richer color than the preceding, and quite rare on fallen limbs.

51. HYDNUM CARYOPHYLLATUM, B. & C.—On fallen limbs. Variable in color from a dirty yellow to light.

52. HYDNUM OCHRACEUM, Pers.—Abundant in dry woods.

53. HYDNUM CAPUT-MEDUSÆ, Bull.—Beautiful and rare. Only one specimen found, and this in a cedar swamp of perpetual darkness. The growth was such as might well suggest the above name. The long teeth were of a beautiful pink color, and as seen alive, they seemed to resent my rude touch as I plucked the prize from the fostering, living *Juniperus*.

54. HYDNUM FASCICULARIA, B. & C.—On dead limbs in dry woods, but not a common species.

55. HYDNUM WEINMANNI, B. & C.—Very rare and fine.

56. HYDNUM PULCHERRIMUM, B. & C.—(*H. cirrhatum*, Pers.) Found on a dead *Nyssa* in damp woods. Rare. A fine species.

57. AILOGRAPHUM QUERCINUM, E. & M.—Abundant on leaves of *Quercus*.

58. ASCOBOLUS CARNEUS, Pers.—Common on old cow dung under shelter.

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57. AILOGRAPHUM QUERCINUM, E. & M.—Abundant on leaves of *Quercus*.

58. ASCOBOLUS CARNEUS, Pers.—Common on old cow dung under shelter.

59. Ascobolus purpurascens. Pers.—In same situation as No. 58.

60. Kneiffia setigera, Fr.—Occasional on fallen limbs.

61. Corticium polygnium, Fr.—On fallen limbs. Well marked. Not common.

62. Corticium alutarium, B. & C.—Common at times in dry woods.

63. Corticium ochroleucum, Fr.—On old fallen limbs and trees, under side, in contact with the earth. White. Velvety in texture. May be the same as *C. radians*, Berk., an unpublished species from Venzuela, and Mr. Ellis thinks it is *C. radiosum*, Fr.

64. Corticium ochroleucum, Fr., var.—Distinct from No. 63 by its ochre-red color, which is well defined in every specimen. It should be called a good species.

65. Corticium arachnoideum, B.—Abundant on fallen limbs.

66. Corticium lactescens, B.—Very common. White, milky.

67. Corticium portentosum, B. & C.—White, thick, under side of old logs. Resembles No. 63. This is a tropical species.

68. Corticium incarnatum, Fr.—Common.

69. Corticium dendroideum, n. sp. MS.—Found on a small limb. Color brownish-yellow.

70. Corticium cervicolor, B. & C.—No. 20 and 150 of Ellis, who thinks it may yet prove to be a new genus. Very rare and fine.

71. Corticium sulfureum, Fr.

72. Corticium dryinum, B. & C.—On fallen bark. Rare.

73. Corticium giganteum, Fr.—Not common. Much like *C. subgiganteum*, B. & C., *læve*, Pers.

74. Corticium subgiganteum, B.—Not uncommon.

75. Corticium læve, Pers.—Abundant on limbs. Hard to separate from 73 and 74.

76. Corticium Petersii, B. & C.—On rotton wood. Abundant.

77. Corticium glabrum, B. & C.—On dead bark.

78. Corticium scutellare, B. & C.—Well marked. On limbs.

It appears that *Corticium* abounds in species. There may be others, but we are certain of the foregoing, and their elimination has fully occupied the time of Mr. E., myself and others. They will receive, however, further study, and the results will be noted.

NOTE AND CORRECTION.

It is stated on page 87 in connection with the collection made by the Rev. A. B. Langlois that Plaquemines county is not far from Baton Rouge. Mr. Langlois informs us that this is true of Plaquemines *city*, but that Pointe a la Hache (his P. O. address), the county seat of Plaquemines *county*, is 200 miles from Baton Rouge, below New Orleans. If Plaquemines is not at all mentioned in his address, no confusion would arise.

On page 54, 24,000 should read 2,400.

POLYPORUS OFFICINALIS, FRIES.

BY W. W. CALKINS, CHICAGO, ILLINOIS.

This fine and rare species is found occasionally growing in dead places on living *Pinus Strobus* in the forests of Michigan. It is not common. I know of a specimen that has been in an office here for ten years, and during this time has been an object of curiosity as well as of usefulness. This specimen is about one foot long and eight inches in diameter, perfectly round, and uniform in size from base to top, or nearly so. The growth was made in concentric layers, each a little over one half an inch in thickness and slightly overlapping the one below. The color throughout is white; pores visible; taste very bitter and similar to that of quinine, in place of which, indeed, myself and many others have used it. Up to this time, nearly one half of it, except the shell, has disappeared. Its virtue as a tonic is undoubted. According to Fries, as I learn from Ellis, it seems that the old Greek botanist, Dioscorides, was acquainted with and mentions this valuable species in a work he published, MATERIA MEDICA, during Nero's reign. Therefore its medical virtues have been long esteemed. During our late war, it was used to some extent when quinine could not be obtained. From numerous inquiries, I am satisfied that it is rarely found in the pine forests of Michigan, and it is certain that no specimens are ever thrown away. The one here is carefully guarded.

NEW LITERATURE.

BY W. A. KELLERMAN.

"PRIMO CENSIMENTO DEI FUNGHI DELLA LIGURIA." Per F. Baglietto. Nuovo Giornale Botanico Italiano. 12 Luglio, 1886.

"KRYPTOGAMEN FLORA VON DEUTSCHLAND, OESTERREICH UND DER SCHWEIZ, PILZE." 24 Lieferung. Pyrenomycetes (Sphærieaceæ). Von Dr. G. Winter.

This Lieferung includes pp. 657–736. The descriptions of twenty-seven more species of *Diaporthe* are given, also two of *Mamiana* and 102 species of *Valsa*. Dr. Winter has taken this last genus in the wide sense of Nitschke for three reasons, namely: because the relationship of all the forms here united is very close, because of the structure of the stroma and its significance we know scarcely anything, and because if *Valsa* is divided into many genera according to the differences in the stroma, so also must the genera *Diaporthe* and *Anthostoma* likewise be divided, which is scarcely a practicable undertaking. He enumerates the species under the following subgenera: *Eutypa*, *Endoxyla*, *Cryptovalsa*, *Cryptosphæria*, *Cryptosphærella*, *Eutypella*, *Euvalsa* and *Leucostoma*.

"ASCOMYCETES OBSERVES AUX ENVIRONS DE LIEGE." Par V. Mouton. Bulletin de la Societe Royale de Botanique de Belguique. Tome vingt-cinquieme, Fascicule premier, pp. 137–162, 1886.

"CARTRIBUTION A LA FLORE MYCOLOGUIQUE DE BELGUIQUE." Par Mmes. E. Bommer et M. Rousseau, pp. 163–185. l. c.

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